

'Bomb-making for Beginners': Inside an Al-Qaeda E-Learning Course

by Anne Stenersen

Abstract

This study explores how terrorists utilize the Internet to learn bomb-making skills. Unlike previous studies, it does not focus on assessing the quality of online bomb recipes. Rather, it discusses the efforts being made by on-line jihadists to help others learn by providing so-called "e-learning courses." As of today, such courses have few active participants yet they tend to attract large interest - indicating that there is a demand among Al-Qaeda's online sympathizers for developing this concept further.

Introduction

This article discusses how the Internet may assist terrorists in learning how to manufacture explosives. Explosives remain the most common type of weapon for terrorist groups, with bombings accounting for about one-half of all terrorist attacks worldwide.[1] Previous studies of this kind have tended to concentrate on identifying the content of militant web pages, including what kind of "bomb recipes" are being circulated on these pages, and how technically accurate they are.[2] However, few studies have attempted to explain the actual learning process of terrorists who chose to rely on the Internet. How do real-life terrorists utilize online content to become proficient bomb-makers? What major obstacles and challenges do they face? And what efforts are being made by content producers (terrorist groups, forum administrators or "jihobbyists") to overcome these obstacles today?

The topic has become one of current interest as one of the world's most dangerous terrorist networks, Al-Qaeda, is increasingly trying to urge its followers to carry out terrorist attacks at their own initiative without first travelling to a foreign country for training, indoctrination and approval. Before 2001, it was relatively easy to travel to Al-Qaeda's training camps in Afghanistan. In fact, it was a central part of the Al-Qaeda leadership's training doctrine.[3] After 2001 and until today, it has become extremely risky, not only due to the risk of being compromised by security services, but also due to U.S. drone campaigns against known Al-Qaeda hideouts in the Afghan-Pakistani border areas as well as in Yemen. These drone campaigns have increased drastically since 2008 and have killed a number of high- and mid-ranking Al-Qaeda members. These include not only organisers and leaders of international terrorist operations, such as Hamza Rabia al-Masri and Saleh al-Somali. They also include bomb-makers such as Ibrahim al-Muhajir al-Masri, who helped build the bombs for the 1998 East African embassies bombings, and Midhat Mursi (aka Abu Khabab al-Masri), the Egyptian-born chemist who ran his own explosives training camp in Afghanistan during the Taliban's reign. He is believed to have continued this effort in the Tribal Areas of Pakistan after 2001 until he was killed in 2008.[4]

The study is divided into five parts. First, it discusses Al-Qaeda's strategic shift towards "individual jihad." Second, it explores how terrorists learn bomb-making skills more generally. Third, the article takes us inside an "e-learning course" which was held on *Shumukh al-Islam*, a well-known jihadi discussion forum, in April and May 2011. Fourth, the article discusses the evolution of Al-Qaeda's "e-learning tools" more generally, and fifth, it looks at a U.S. cell of would-be terrorists who sought to learn the art of bomb-making online.

Studies of jihadi discussion forums have several limitations. First, the members of a discussion forum are anonymous. All we know is their nickname as well as their status and activity on that particular forum. We do not know who they are and what their real life intentions might be. Second, we must assume that part of the course takes place through private correspondence, which is hidden to the outside observer. Nevertheless, there is much to learn from studying jihadi e-learning courses. The above-mentioned course included ten accessible lessons and more than 300 open comments, questions and suggestions from the participants. It gives us a good idea of the content and the dynamics of the course, as well as the obstacles faced by the participants.

Al-Qaeda's Shift towards "Individual Jihad"
Due to the extreme pressure on Al-Qaeda's current sanctuaries abroad, Al-Qaeda leaders seem to be expanding their strategy to include so-called "leaderless jihad." The concept is not new. The jihadi strategist Abu Mus'ab al-Suri wrote and lectured on the idea back in the 1990s, and held several lecture

series to trainees in jihadi training camps. The strategic concept developed by al-Suri became known as *al-muqawama al-islamiyya al-'alamiyya*, "The Global Islamic Resistance." [5] He praised "lone wolf" terrorist attacks that were conducted by individuals that had no connection to Al-Qaeda Central, but who nevertheless carried out attacks supporting Al-Qaeda's global ideology. Individuals praised by al-Suri included El Sayyid Nusayr, an Egyptian-American who shot and killed the American-Israeli politician Meir Kahane in New York in 1990, and Ramzi Yusef, who carried out the first bombing of the World Trade Center in 1993. [6]

Al-Suri was never an official member of Al-Qaeda, but his publications are widely read by jihadists across the world, especially after the U.S. State Department announced a US\$ 5 million reward on al-Suri's head in November 2004. [7] Al-Qaeda's top leadership has later picked up on al-Suri's ideas. In June 2011, Ayman al-Zawahiri issued a video speech where he encouraged followers of Al-Qaeda to carry out "individual acts of jihad" in the countries in which they reside, rather than going to battlefields abroad. [8] The video states:

"The door of jihad cannot be closed, and he who wants to launch in his midst with determination and honesty, should not stand [back] in the face of security restrictions nor the difficulty of reaching the fighting fronts, as he could make the place he is in one of the battlefields, and that would be through individual jihad" [9]

The video praises several individuals who carried out exemplary acts of "individual jihad" in the past, including Mohammad Bouyeri, who killed the Dutch filmmaker Theo van Gogh in Amsterdam in 2004, and Nidal Malik Hasan, who shot and killed fourteen U.S. soldiers at Fort Hood, Texas in 2009. The video acknowledges that such acts are regarded as more controversial than travelling to an occupied Muslim territory to fight so-called "classical jihad," and spends considerable time arguing that the two should go hand in hand.

The second part of the video contains brief operational guidance that focuses on the types of targets that should be attacked, including "the institutions that shape [the country's] economic joints," "influential public figures in the Crusader and Zionist government, industry and media," and "the headquarters of newspapers and the media outlets that mock our religion and prophet." [10] In addition, the video encourages disruptive activities by way of hacking, such as denial-of-service (DOS) attacks and hacking to disrupt electric power network systems.

With a few exceptions, the video does not instruct the would-be terrorist in how he should train or what weapons to use against the preferred targets. It suggests that jihadists based in the United States should attack with firearms, as these are assumed to be easily accessible. Apart from that, security awareness is the most specific operational guideline, and the video points to resources on the Internet:

"[take] advantage of the wide range of resources available today on the Internet, particularly the various manuals, encyclopedias and course [sic] which deal with the Mujahideen's operational and electronic security, and security in general." [11]

The lack of detailed operational guidelines is probably intended – the fear and terror created by a campaign of "individual jihad" stems, in part, from not knowing who will attack, at what time and with what means. Al-Qaeda's video hints that the attacks should be simple – the "role models" presented all used knives, firearms, or, in one instance, homemade explosives (Ramzi Yusef in the 1993 World Trade Center bombing).

It is notable that Al-Qaeda discourages people from seeking training in foreign countries, even if such training increases the terrorists' chance of succeeding. [12] Instead, the operatives are to take advantage of opportunities in their home countries, such as procuring firearms legally, and to learn from literature on the Internet. Now and probably more so in the future, Internet stands out as a crucial resource for Al-Qaeda to use to train its operatives without risking compromising their security, due to ease of access anywhere in the world, and the possibility of remaining anonymous.

An article published in 2008 argued that while there is an abundance of training literature on radical forums online, the Internet does not function as a "virtual training camp" for Al-Qaeda – mainly, because there is no organized effort on part of Al-Qaeda Central to train people online. Others have argued that Internet training would never really replace real-life training because the Internet training can only transfer implicit but not tacit knowledge, i.e. the skills that can only come from hands-on experience. [13]

This paper argues that Al-Qaeda Central is still not making a determined effort to train followers online. However, online training courses organized by "jihobbyists" and forum administrators have become somewhat more professionalized over the past three years. The e-learning courses are more organized and include, to a greater extent than before, audio-visual learning materials as well as written

compendiums. Their main weakness is their reliance on one or very few online instructors who are not always able to contribute on a regular basis, causing the interest to ebb away. It can be argued that if jihadi groups started using the Internet in a more systematic way, similar to commercial "remote learning" courses, the threat of individual terrorism would be greater than it is today. In principle, it should be possible. Academic literature argues that e-learning can be as effective as classroom teaching if conducted the proper way.[14]

How Do Terrorists Learn Bomb-Making Skills?

To discuss whether the Internet would be suitable for teaching bomb-making skills, we first need to establish how terrorists learn. More specifically, what are the conditions that need to be in place for a successful transfer of knowledge? In Al-Qaeda, as well as in other terrorist groups, knowledge has generally been transferred through direct contact, typically, in a training camp or similar settings. In the 1990s, Al-Qaeda started to record and compile knowledge in writing. The first, and most famous of such collections was the *Encyclopaedia of Jihad*, the purpose of which was to record all the experiences from the Afghan-Soviet jihad and to make sure the knowledge was not lost on future generations.[15] But written records are usually partial – they tell less than what is implicitly known by the practitioners of the craft.[16]

Al-Qaeda sought to transfer such knowledge directly, by establishing "explosives courses" that were taught in the training camps in Afghanistan by skilled experts. In the 1990s, Al-Qaeda's most famous bomb expert was not Abu Khabab al-Masri, as commonly thought (Abu Khabab was a "freelance trainer" for Al-Qaeda operatives, but was not directly involved in Al-Qaeda's major international operations). Al-Qaeda had as chief bomb-maker an Egyptian with the nickname Abu Abdul Rahman al-Muhajir (real name Muhsin Musa Matwakku Atwah), who constructed the bombs for the East African Embassy bombings in 1998; later he worked as a trainer and bomb-maker for Al-Qaeda in Afghanistan.[17]

Al-Qaeda's bomb-making experts transferred their knowledge to new recruits who could then take over their role as trainers in the future. A recruit named Tarek Mahmoud el-Sawah went to Afghanistan during the Taliban's rule and was hired as a bomb-trainer by Al-Qaeda. Having served in the Afghan-Soviet jihad as well as in Bosnia, he had previous experience with explosives. Nevertheless, once employed by Al-Qaeda, he was able to update and refine his skill, presumably, through

"receiv[ing] specialized explosives training, including instruction in building improvised explosive devices (IEDs) and remote detonation devices, from Abu Abdul Rahman al-Muhajir. He went on to receive advanced explosives/electronics training from Abu Tariq al-Tunisi, learning how to make timers for IEDs using Casio watches as remote detonators. Then, from June 2001, he gave instruction in explosives and wrote a four-hundred-page bomb-making manual." [18]

After 2001, terrorist groups in Europe have preferred to go to a jihadi training camp, usually in Al-Qaeda's core areas in the Afghanistan-Pakistan border areas. For example, two of the London 7/7 bombers went to the Afghanistan-Pakistan border areas around 2004. Their training was organized by Al-Qaeda's then chief of "external operations," Hamza Rabia' al-Masri. Yet these training courses were not necessarily run by Al-Qaeda members. Terrorists who attempted to carry out attacks in Europe or the U.S. were trained at various times by Pakistani militant groups (such as Tehrik-e-Taliban Pakistan, Lashkar-e-Tayba, etc.), the Uzbek-dominated Islamic Jihad Union, or by various local "freelancers." There are many reasons why would-be terrorists chose to go abroad to train – the prospect of receiving high-quality training is probably only one among several motivations. However, this aspect is beyond the scope of this paper, which focuses strictly on the process of transferring technical knowledge, not broader motivators and driving factors for radicalisation.

For Al-Qaeda's strategy of "individual jihad" to work, individuals are required to acquire the necessary bomb-making skills themselves, without going to a training camp. There are examples of terrorists who have learned how to make powerful bombs based primarily based on their own efforts and experiments. In 1995, Timothy McVeigh constructed a fertilizer truck bomb which demolished the Murray building in Oklahoma City, killing 168 people. McVeigh reportedly acquired the skills to make the bomb by picking up ideas from right-wing literature (among them *Hunter*, a William Pierce novel from 1989), and by conducting experiments on an abandoned farm.

In July 2011 the Norwegian Anders Behring Breivik constructed a bomb that partly demolished the Government's head offices in central Oslo, killing seven people. Thereafter he conducted a shooting massacre at a Labour Party youth camp at nearby Utøya, killing 77 more people. Like McVeigh, Breivik is assumed to have acquired the bomb-making skills by his own effort. As Breivik left a detailed diary of all his activities prior to the attack, his case provides rare insight into what it takes to acquire bomb-making skills at one's own effort, without previous training. Breivik's case illustrates that success requires more than simply downloading a bomb recipe from the Internet and buying the materials at the nearest grocery store. Rather, it is a meticulous process requiring high motivation, patience, and intelligence.

Breivik claimed to have spent a total of 200 hours over two weeks to locate and study explosives recipes on the Internet, and two months to manufacture the explosives themselves.[19]

While the examples here are taken from the right-wing extremism, this is not to say that militant Islamists would also be capable of doing the same, if they have the necessary personal qualities. Jose Padilla is an example of an Al-Qaeda member who did not have the judgmental skills necessary to conduct such an attack alone: in 2001 he suggested to Khalid Sheikh Mohammed to build a nuclear bomb based on recipes found on the Internet. He was instructed to carry out a conventional attack with a better chance to succeed. His final attack plan was designed not by Padilla but by Mohammed Atef. Padilla's U.S. citizenship was probably the main reason why Al-Qaeda decided to use him - not his scientific knowledge.

Dhiren Barot, a U.K.-based Al-Qaeda member, proved more capable to conduct research and come up with a viable plan. Barot spent months doing research for his plan, the main component of which was to blow up limousines filled with gas tanks in underground parking areas. Many documents were later released by the British police, which give us insight in Barot's research methods. To devise a viable plan, Barot, like Breivik in Norway, researched multiple sources over a long period of time. Known sources to have been consulted by Barot included scientific articles, books and manuals found in the local library and on the Internet. Barot may have consulted jihadi training literature, but the main source of knowledge appears to have come from other open sources.[20]

This illustrates that a person who is dedicated to learn, and who has the ability to absorb and analyse the knowledge on his own, is not dependent on jihadi forums or Al-Qaeda-produced bomb manuals to find the necessary information. This article argues that the main strength of jihadi forums is not their technical content in itself, but the fact that they offer an interactive learning environment that may attract less dedicated would-be bomb makers - those who do not have the skills and patience to do extensive research on their own. Jihadi e-learning courses remove a major hurdle encountered by most hobbyist bomb-makers, namely, not knowing where to start.

Al-Shumukh's "Special Explosives Course for Beginners"

On 20 April 2011, a user with the nickname 'Adnan Shukri' started a new thread on the Shumukh al-Islam forum. Especially designed to attract newcomers, the thread's title read, "I am a beginner in the science of explosives and poisons, from where should I start? (Special course for the beginner *mujahid*)."[21] Over the next month, Shukri posted lessons, assigned 'homework' and replied to questions both openly on the forum, and through Personal Messaging (PM) with other forum members.[22]

Shukri's identity is unknown. On the forum, he claimed to be a middleman between the forum's members and Abdullah Dhu al-Bajadin, the main instructor of the course. Dhu al-Bajadin's identity is likewise unknown. The name has been used on various jihadi forums since at least 2006 by one or several people posing as self-proclaimed explosives experts. Dhu al-Bajadin is also known as the author of a number of jihadi bomb-making manuals that have been widely distributed on the Net.[23] Participants in the thread displayed great respect towards "Professor" Dhu al-Bajadin and his assistant Adnan Shukri. It increases the probability that the course is authentic because forum members are generally wary of impostors and 'spies' trying to infiltrate them. Another sign of authenticity is the fact that Shukri's thread was approved by one of Shumukh al-Islam's web administrators and granted "sticky" status on the forum over a period of several months.

The thread was active for six and a half months - from 20 April to 4 November, 2011. As of 11 November 2011 it had a total of 19,198 viewings and was by far the "most viewed" thread in al-Shumukh's sub-forum for explosives and preparation.[24] However, the actual course lasted little more than one month - from 20 April to 21 May, 2011. After this, Adnan Shukri disappeared from the forum, ending the organized part of the course. A total of ten lessons were posted - eight lessons in "Part One" and the two first lessons in "Part Two" - before the course was abruptly terminated.

During the first two weeks of the course, Adnan Shukri claimed to post lessons and answers to questions on behalf of Abdullah Dhu al-Bajadin. Then, on 5 May 2011, Shukri announced that Dhu al-Bajadin had lost his access to the Internet, for unspecified reasons, and that there would be a short break in the course. But posting of lessons resumed the next day, as Shukri decided he would carry on with the course on Dhu al-Bajadin's behalf. Forum members continued to show interest in the course and there was relatively constant activity until Shukri's departure in the end of May 2011(see Figure 1).

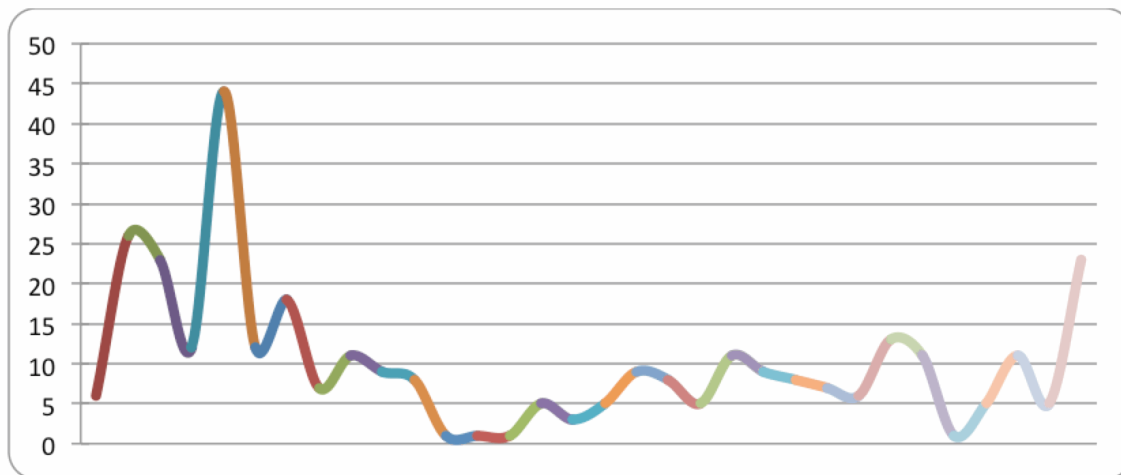


Figure 1: No. of Replies per Day, 20 April - 21 May 2011

By 21 May 2011, the thread had grown to 324 replies, including the comments and lessons posted by Adnan Shukri. A total of 58 forum members had been actively posting within the thread, but only nine out of them were active on a regular basis, i.e. having posted more than ten comments each; and only six of them submitted answers to the “exam” that was given at the end of Part One of the course. Although the thread had been viewed more than 19,000 times in the end, the number of active participants in the course did not seem to exceed ten or twenty at most. This illustrates that jihadi e-learning courses is an extremely marginal phenomenon – on the other hand, they should not be regarded as insignificant. Al-Qaeda sympathisers are becoming more and more proficient at using modern communication technologies, especially for propaganda purposes. But since 2008, important improvements have been done in the field of e-learning as well.

The Evolution of Jihadi E-Learning Courses

The Al-Qaeda network has a long tradition of promoting remote learning courses, even before the age of the Internet. According to high-ranking Al-Qaeda member Fadil Harun, Al-Qaeda started to offer distant learning courses for new cadres already back in 1999-2000. The courses were part of a comprehensive program held within Afghanistan to educate future Al-Qaeda leaders. While practical skills were taught in training camps and at the Taliban’s frontlines, some of the theoretical courses were offered through letter correspondence.[25] After 2001, training courses started to appear on the Internet – the “Al-Battar” series of Al-Qaeda on the Arabian Peninsula (first issued in January 2004) being a prominent example.[26] From around 2006, audio-visual training material started appearing on jihadi websites, including detailed instruction videos on how to manufacture explosives. However, these videos were not produced by the Al-Qaeda network’s official media companies, but by individual jihadi sympathisers or Palestinian groups such as Hizbollah and Hamas. A study published by this author in 2008 concluded that Al-Qaeda was far from utilizing the full potential of the Internet in terms of training potential recruits.[27].

Since 2008, the number of instruction videos on jihadi web pages has increased, but producers and content are largely the same as before. An exception is the inclusion of two videos explaining how to build an improvised Explosively Formed Penetrator (EFP) – a weapon that appeared in the Iraq war after 2005. While most of the EFPs in Iraq were relatively sophisticated weapons – imported from Iran and used by Shia militias – there were attempts at using crude, home-made devices as well. At some point this production method was captured on tape – apparently by a Shia militia, since the salafi-jihadi version of the films refers to the producer as *hizb shaytan* – “The Party of Satan.” The film eventually made its way to jihadi discussion forums, after being modified by members of the Al-Qaeda affiliated al-Fallujah forum.[28] It was first spotted by FFI researchers in February 2011.[29] The time lapse is worth noting: It took more than five years from a jihadi group started developing the device on the ground in Iraq, until an instruction video on how to manufacture it appeared on a jihadi discussion forum. This may qualify the claim that the Internet plays an important role in transferring insurgent tactics and technologies between battlefields – at least for now – but this could rapidly change in the future, since the infrastructure for doing so is already in place. Most jihadi insurgent groups today have proven themselves capable of video-editing and rapid distribution via the Internet. It is probably a question of intention, rather than capability.

Returning to the topic of "e-learning courses" on jihadi forums the most visible development that has taken place since 2008 is the increased amount of courses being offered, as well as the integration of written and audio-visual learning aids. For example, al-Shumukh's "Special explosives course for beginners" which was offered in 2011 comprised a number of written compendiums in pdf-format – full of pictures and illustrations – in addition to video clips selected by the instructor to illustrate certain aspects of the lesson such as the effect of an explosion of a particular substance. Back in 2008, there were both audio-visual and written training courses offered on jihadi forums, but seldom a mixture of both. The development may not seem so significant, but at least it illustrates that certain efforts are being made at improving the effectiveness of such courses. Court cases against suspected terrorists in the West confirm that there is an interest among terrorists on the ground for accessing such e-learning material. This will be further detailed in the next section.

An Example of a Would-Be Jihadist Who Sought Online Training

The court case against Mohammad Zaki Amawi et al provides an example of how real-life militant islamists utilize the Internet for learning. Amawi was the leader of a three-member would-be "terrorist cell" in Ohio, USA. In 2004-2005, the cell tried to obtain militant training in the United States before going to Iraq to fight U.S. forces. They sought the assistance of a "trainer," the former Special Operations Forces soldier Darren Griffin, who in reality worked as an undercover agent for the FBI. The three members of the cell were convicted to lifetime in prison in 2008.[30]

Amawi and one of his co-conspirators, Marwan El Hindi, were both active on jihadi forums on the Internet. Amawi had a large collection of propaganda films from Al-Qaeda, especially from Iraq. The cell's members met on several occasions and watched videos together. They also attempted to use the Internet to obtain training materials: In early 2005, Amawi downloaded the "Martyrdom operation vest preparation" instruction video (a video originally produced by Hizbullah). Al Hindi also downloaded the video, as well as a slide show entitled "The mujahidin in Iraq and the art of planting explosive charges," produced by the Islamic Army of Iraq. They also had other, unspecified training manuals on how to make explosives. They discussed the training materials with their "trainer" Darren Griffin, and they expressed interest in learning how to build IEDs.

In February 2005, El Hindi and Griffin visited the al-Ikhlās forum together. The website offered a "Basic training" and an "Advanced training" course. According to the court documents, El Hindi helped Griffin to register for the basic training course. There is no further information as to whether El Hindi or his co-conspirators completed the course, but El Hindi was clearly familiar with its existence.

The case illustrates how real-life radicals may exploit online training material. It is worth noting that Amawi sought to join the jihad in Iraq for the first time between October 2003 and March 2004. It means that he was already radicalised at the time he downloaded the jihadi training materials and accessed the online e-learning course. The purpose of downloading the material was probably to get better prepared before attempting to join the jihad in Iraq a second time. In this case, the jihadi training manuals were not the initial radicalising factor, but they probably served as encouragement in later stages of Amawi's radicalisation process.

However, the case also indicates that the cell's members were not able to absorb the online training material on their own – indicated by the fact that they sought help from an external "trainer." Also, they were not able to judge the quality of the online training material. For example, El Hindi said he wanted to use the "Martyrdom operation vest preparation" video to train new recruits, but the instructions in the video are probably too advanced for a beginner with no experience in explosives. [31] Moreover, the video is not suitable if the purpose is to convince new recruits to become suicide bombers. It is strictly informative, and does not contain any of the emotional persuasion tools typical of Al-Qaeda-style recruitment videos (pictures of dead martyrs, images of paradise, religious hymns, etc.). In the end it was Griffin – the FBI infiltrator – who helped the cell's members receive proper firearms training by renting a commercial shooting range.[32]

Conclusion

Jihadi e-learning courses are a marginal phenomenon, yet they should not be ignored. While there are still very few active participants in such courses, they attract large interest among online jihadists. The quality of the courses has improved over the last few years, and there are dedicated people online who are interested in developing them further. As training in jihadi conflict areas has become difficult, more recruits are likely to try and obtain paramilitary skills before going abroad – or before attempting to carry out a terrorist attack at home. Some of these would-be jihadists might consider joining regular armed forces or private shooting clubs in their home country. A far less risky venture is to seek out jihadi training courses online, because they allow the participants to remain anonymous while conducting their training.

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Notes

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- [4] Abu Ubayda al-Maqdisi, *Shuhada fi zaman al-ghurba*. Place unknown: Al-Fajr Media Center, 2008. Accessed via *al-Ikhlās* on February 2, 2008, www.alekhlaas.net, 14–17; "Al-Qaeda confirms death of poisons expert in Pakistan," *The Guardian*, August 3, 2008; accessed on November 28, 2012, www.guardian.co.uk/world/2008/aug/03/alqaida.terrorism.
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- [6] Abu Mus'ab al-Suri, *Da'wat al-muqawama al-islamiyya al-alamiyya* Place and publisher unknown, 2004, p. 1356.
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- [10] "You are held responsible only for thyself – Part 1 & 2," *al-Sahab*, June 3, 2011.
- [11] "You are held responsible only for thyself – Part 1 & 2," *al-Sahab*, June 3, 2011.
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- [14] See, for example, Barbara Means and Yukie Toyama et. al., "Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies," *U.S. Department of Education*, September 2010; accessed November 28, 2012, <http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>.
- [15] The *Encyclopaedia* was compiled electronically by Khalil Said al-Deek (aka Abu Ayed al-Filistini), an American-Palestinian with a diploma in computer science from the U.S. Al-Deek's efforts ensured the *Encyclopaedia's* continued life on the Internet to this day. Ali H. Soufan, *The Black Banners: The Inside Story of 9/11 and the War against al-Qaeda*. New York: Norton, 2011, pp. 132 - 133.
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- [22] Reference to Personal Messagings (PMs) were made in the public part of the discussion thread. This author has not had access to the PMs themselves.
- [23] Anne Stenersen, "The Internet: A virtual training camp?", op. cit., p. 217.
- [24] When the last updates to this article were done on 11 February 2013, the thread was still present on the al-Shumukh forum and it was still the "most viewed" training-related thread – with a total of 21,325 views.
- [25] Fadil Muhammad, *Al-harb ala al-islam: Qissat Fadil Harun, al-juz al-awwal*. Place and publisher unknown, 2009; accessed via *Ansar al-mujahidin* on May 4, 2009, www.as-ansar.com.

[26] For more information on "al-Battar," see Bruce Hoffman, *Inside Terrorism*, op. cit., pp. 218 - 219.

[27] Anne Stenersen, "The Internet: A virtual training camp?" , op. cit., pp. 225–28.

[28] This is apparent as al-Fallujah's logo has been superimposed on the instruction video.

[29] This information was given to the author by FFI's Senior Research Fellow Brynjar Lia in November 2011.

[30] "United States of America v. Mohammad Zaki Amawi, Marwan Othman El-Hindi, and Wassim I. Mazloum," Government's sentencing Memorandum, United States District Court, Northern District of Ohio, filed on October 5, 2009.

[31] Anne Stenersen, "The Internet: A virtual training camp?" , op. cit., pp. 220 - 221.

[32] For more case studies of how U.S.-based jihadists used the Internet, see J. M. Berger, *Jihad Joe: Americans who go to war in the name of Islam*. Dulles: Potomac Books, 2011, pp. 177 - 201.



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